CLAIMS

1. A multilayer insulated wire having two or more extrusion-insulating layers provided on a conductor to coat the conductor,

wherein at least one layer of the insulating layers is composed of a polyethersulfone resin, and

wherein at least one layer other than said at least one insulating layer is provided as an outer layer to said at least one insulating layer and is composed of a polyphenylenesulfide resin.

2. The multilayer insulated wire as claimed in claim 1, wherein the polyphenylenesulfide resin to form the at least one insulating layer initially has a loss modulus that is two or more times a storage modulus, at 300°C and 1 rad/s in a nitrogen atmosphere.

3. The multilayer insulated wire as claimed in claim 1, wherein the outermost layer among the insulating layers is composed of a polyphenylenesulfide resin.

4. The multilayer insulated wire as claimed in claim 1, wherein the at least one insulating layer is composed of a mixture made by blending: 10 to 85 parts by

weight of an inorganic filler, and 100 parts by weight of the polyethersulfone resin.

5. A transformer, comprising the multilayer insulated wire according to any one of claims 1 to 4.

6. A multilayer insulated wire having two or more solderable extrusion-insulating layers provided on a conductor to coat the conductor,

wherein at least one layer of the insulating layers is composed of a resin mixture made by blending: 100 parts by weight of a resin (A) of at least one selected from the group consisting of a polyetherimide resin and a polyethersulfone resin, and 10 parts by weight or more of a resin (B) of at least one selected from the group consisting of a polycarbonate resin, a polyarylate resin, a polyester resin and a polyamide resin, and

wherein at least one layer other than the at least one insulating layer composed of the resin mixture is provided as an outer layer to the at least one insulating layer and is composed of a polyphenylenesulfide resin.

7. The multilayer insulated wire as claimed in claim 6, wherein the resin (A) is a polyethersulfone resin.

8. The multilayer insulated wire as claimed in claim 6, wherein the resin (B) is a polycarbonate resin.

9. The multilayer insulated wire as claimed in claim 6, wherein the resin (A) is a polyethersulfone resin and the resin (B) is a polycarbonate resin.

10. The multilayer insulated wire as claimed in claim 6, wherein the resin mixture is made by blending: 100 parts by weight of the resin (A), and 10 to 70 parts by weight of the resin (B).

11. The multilayer insulated wire as claimed in any one of claims 6 to 10, wherein the polyphenylenesulfide resin to form the at least one insulating layer initially has a loss modulus that is two or more times a storage modulus, at 300°C and 1 rad/s in a nitrogen atmosphere.

12. The multilayer insulated wire as claimed in any one of claims 6 to 10, wherein the outermost layer among the insulating layers is composed of a polyphenylenesulfide resin.

13. The multilayer insulated wire as claimed in any one of claims 6 to 10, wherein the at least one insulating

layer is composed of a mixture made by blending: 10 to 85 parts by weight of an inorganic filler, and 100 parts by weight of the resin mixture of the resin (A) and the resin (B).

14. A transformer, comprising the multilayer insulated wire according to any one of claims 6 to 10.